MUI Auction Overview

1. CRR MUI Training - Auction_CBT_2014_04_03

1.1 Congestion Revenue Rights (CRR)

1.2 Introduction

To fulfill the Tariff required training each individual needs to complete the following, in the order listed below:

- CRR Basics Overview CBT
- CRR MUI Overview & SRS CBT
- One of the following (although both are suggested)
  - MUI Allocation CBT
  - MUI Auction CBT

This course is for the participants, so your feedback would be appreciated. Please send any comments to crrdata@caiso.com.
1.3 Goal of this Training Course

Provide an overview of the various CRR processes that participants should understand in order to be able to participate in the CRR Allocation and/or CRR Auction. This course will specifically focus on the use of the Market User Interface as it relates to the auction processes.

1.4 Auction Processes - Agenda

In this presentation we will discuss the following topics related to Congestion Revenue Rights and the auction process:
- Auction parameters
- Bid curves
- Portfolio creation / editing / deleting
- Credit margin
- Credit validation
- Portfolio validation and possible errors
1.5 Auction Portfolio - Overview

Auction Portfolio - Overview

- Important parameters in the auction market
  - Each bid can contain a maximum number of 20 breakpoints.
  - Maximum bids allowed per portfolio is 1000.
  - Maximum bids allowed per market participant per auction is 100,000.
  - Minimum credit requirement for participating in a monthly auction market is $100,000.
  - Minimum credit requirement for participating in a seasonal auction market is $500,000.

1.6 Auction Portfolio - Overview

Auction Portfolio - Overview

- Important parameters in the auction market
  - Bid prices are for a CRR term and time-of-use. For example, in the monthly auction the CRR bid is for either all on peak or off peak hours within the month. For the annual auction the CRR bid is for either all on peak or off hours within a season/quarter.
  - Sell bids can be submitted by offering to buy a counter-flow direction for a negative bid price.
  - Sell bids are only taken by the optimization if a counter-party is willing to pay for the counter-flow provided by the sell bid.
1.7 Auction Portfolio - Overview

Auction Portfolio - Overview

- CRR bid is composed of breakpoints (minimum 2)
  - Each breakpoint has a MW and $ value (first MW value is 0)
  - CRR bid curves will be piecewise linear
  - CRR buy bid curves must be monotonically non-increasing
  - CRR sell bid curves must be monotonically non-decreasing
  - MW of the last breakpoint implies the maximum MW amount
- Below example is for a buy bid curve

<table>
<thead>
<tr>
<th>MW</th>
<th>Price (S/MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2000</td>
</tr>
<tr>
<td>100</td>
<td>2800</td>
</tr>
<tr>
<td>250</td>
<td>2600</td>
</tr>
<tr>
<td>450</td>
<td>4600</td>
</tr>
</tbody>
</table>

1.8 Auction Portfolio List – Current

Auction Portfolio List – Current

- Current list displays the portfolios that are either being submitted or an open auction on have never been submitted to any auctions.
- The list contains the portfolio list information only. The only identifier for a submitted or accepted portfolio is the portfolio name. Any portfolio list can be found in your private messages.
1.9 Auction Portfolio List - Historical

1.10 Portfolio Management
1.11 Auction Portfolio Editor

1.12 Auction Portfolio Editor
1.13 Auction Portfolio Editor

1.14 Auction Portfolio Editor
1.15 Auction Portfolio Editor

1.16 Auction Portfolio Editor
1.17 Auction Portfolio Editor

The CCR Sell Bids tab allows any CCR that is held by the bidder and that is active for the period of the auction to be offered for sale. A market needs to be specified first before the drop down to the right will be populated.

The CCR type is populated based on the CCR being offerd for sale. The purchaser will hold an AUC type CCR if awarded.

1.18 Auction Portfolio Editor

When the CCR has been selected, click on Sell CCR button and the data will be populated to the row that was added.

To create a sell offer manually first click on the ADD button. Find the CCR in the drop down list you want to offer for sale by double clicking on the row that contains the data that you want to see the details of the CCR.
1.19 Auction Portfolio Editor

1.20 Auction Portfolio Editor
1.21 Auction Portfolio Editor

1.22 Auction Portfolio Editor

Automated credit margin process is as follows:

- Submit a bid via the CRR system. If you receive an error message regarding missing credit margin data, save your portfolio as a template.
- Try re-submitting your bid an hour later or after the next scheduled run time.
- The scheduled run times of this correction process are as follows:
  - All Auction days excluding last day: 5:00, 8:30, 9:30, 10:30, 11:30, 12:30PM, 1:30PM, 2:30PM, 3:30PM, 4:30PM, 5:30PM, 6:00PM
  - Last Day: 5:00, 8:30, 9:30, 10:30, 11:30, 12:30PM, 1:30PM, 2:30PM, 3:30PM, 4:30PM
### 1.23 Auction Portfolio Editor

![Image of Auction Portfolio Editor with a note: Confirm Auction Market Name.](image)

The submit button is enabled when your portfolio has been targeted to a market successfully.

### 1.24 Auction Portfolio Editor

![Image of Auction Portfolio Editor with a note: When you hit the submit button, the system will begin to send your portfolio to CTS to verify available collateral.](image)
1.25 Auction Portfolio Editor

If the portfolio is rejected by CTS, the Submit button becomes enabled again and an Error message is available.

1.26 Auction Portfolio Editor

Click on the link to see the detail message.
1.27 Auction Portfolio Editor

You may modify this portfolio and submit it again to CTS or contact the IO Finance Department to post additional secured collateral.

1.28 Auction Portfolio Editor

Bid Exposure for this portfolio is populated here.

Once successfully submitted to the Auction market, the Remove button is enabled.
1.29 Auction Portfolio Editor

Auction Portfolio Editor

- The schedule for updates to the CRR Bid Liability (Column 1)
- Values on the Credit Management section of the Market Participant Portal (Parent-Child EAL Report) will take place at fifteen minute intervals during the open submittal window for the CRR auction as follows:
  - HH:05
  - HH:20
  - HH:35
  - HH:50
- When canceling the submitted portfolios or posting additional secured collaterals, please give sufficient time for credit management to reflect the latest available secured collateral value to be used in the auction based on the above schedules.

1.30 Auction Portfolio Editor

Auction Portfolio Editor

1) Click Remove

2) Confirm Action
1.31 Auction Portfolio Editor

1.32 Auction Portfolio Editor
1.33 Auction Portfolio Editor

1.34 Auction Portfolio Editor
1.35 Auction Portfolio Editor

1.36 Auction Portfolio Editor

- Step 8: Portfolio is now a template.
- Step 9: Check the Delete box next to portfolios you want to remove.
- Step 10: Click Delete to Remove from Auction Portfolio List.
1.37 Auction Portfolio Editor

Auction Portfolio Editor

The following error messages are displayed when there is a problem uploading a portfolio:

- If upload size file is bigger than 4 MB, the error message: “The upload portfolio size is over 4MB”
- If the upload file is not an XML file, the error message: “The upload file type is not valid”
- If there is no file to upload, the error message: “There is no XML file to upload”
- If there are no bids in the upload file, the error message: “No auction portfolio bids found in the upload file”
- If there are no valid bids in the XML file, the error message: “No valid bids to upload”
- If there is an IO exception that is not covered above, the error message: “System file input/output exception occurs”
- If the portfolio upload XML file format does not match the XSD file format, the error message: “XML parsing exception occurs”

1.38 Auction Processes - Questions

Auction Processes - Questions

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End of CRR MUI Auction training section
Thank You

Ensure that your default e-mail program is running, then:

Click Here To Submit Results